AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1.   (Currently amended) A method comprising:

~~for~~ transmitting <u>first</u> digital messages <u>to an analysis tool from a monitoring circuit</u> <u>integrated with a microprocessor, the first digital messages being</u> ~~which are~~ representative of first specific events ~~depending~~ <u>which depend</u> on ~~the~~ execution of an instruction sequence by the microprocessor ~~to an analysis tool through output terminals of a monitoring circuit integrated~~ ~~with a microprocessor~~;

~~transmitting to the monitoring circuit, through dedicated accesses: a request signal for the~~ ~~sending of a message associated with a specific event from~~ <u>detecting, with a request circuit, at</u> <u>least one</u> second specific ~~events~~ <u>event</u> ~~which are~~ independent from the execution of the instruction sequence by the microprocessor;

<u>transmitting to the monitoring circuit, when the at least one second specific event is</u> <u>detected,</u> a ~~signal of~~ characteristic data <u>signal</u> associated with said ~~specific event from~~ said <u>at</u> <u>least one</u> second specific ~~events~~ <u>event</u>;

~~having~~ <u>storing</u> the characteristic data <u>signal in</u> the monitoring circuit, ~~read said request~~ ~~message~~ and, if resource management conditions are fulfilled, transmitting ~~through a dedicated~~ ~~access~~ an acknowledgement ~~message~~ <u>signal to the request circuit, and storing said characteristic</u> ~~data signal~~;

transmitting ~~a~~ <u>at least one second</u> digital message representative of the stored characteristic data signal to the analysis tool<u>; and</u>

<u>processing the first digital messages and the at least one second digital message via the</u> <u>analysis tool to analyze operation of the microprocessor and the at least one second specific</u> <u>event.</u>

2.   (Currently amended) The method of claim 1, in which the resource management conditions are fulfilled when the monitoring circuit is not transmitting <u>the first</u> digital messages representative of the first specific events.

3.   (Currently amended) The method of claim 1, in which the <u>at least one second</u> digital message representative of the stored <u>characteristic</u> data signal comprises an identifier and the characteristic data signal.

4.   (Previously presented) The method of claim 1, in which the characteristic data signal corresponds to the values on input terminals of the microprocessor.

5.   (Currently amended) A device for transmitting digital messages between a monitoring circuit integrated with a microprocessor and an analysis tool <u>An apparatus</u>, comprising:

    <u>a microprocessor;</u>

    <u>a memory integrated with the microprocessor;</u>

    <u>an analysis tool;</u>

    a monitoring circuit; an analysis tool; means for transmitting first digital messages <u>to the analysis tool, the first digital messages</u> being representative of first specific events which depend on the execution of an instruction sequence by the microprocessor; <u>and</u>

    means <u>a request circuit</u> for detecting a specific event from <u>at least one</u> second specific events which are <u>event</u> independent from the execution of the instruction sequence by the microprocessor; and, <u>the request circuit</u> means for transmitting a request for transmitting to the monitoring circuit, when a <u>the at least one second</u> specific event is detected, a request signal and a characteristic data signal associated with said <u>at least one second</u> specific event from said second specific events;,

    wherein the monitoring circuit comprises means for storing <u>stores</u> the characteristic data signal provided by the request transmission means, means for transmitting <u>transmits</u> to the request transmission means <u>circuit</u> an acknowledgement signal when the characteristic data

signal is stored, and ~~means for transmitting a~~ transmits to the analysis tool at least one second digital message representative of said stored characteristic data signal, and ~~to the analysis tool.~~

wherein the analysis tool processes the first digital messages and the at least one second digital message to analyze operation of the microprocessor and the at least one second specific event.

6.   (Currently amended)   The ~~device~~ apparatus of claim 5, in which the ~~detection means~~ request circuit, ~~the request transmission means,~~ the monitoring circuit, and the microprocessor are integrated in a same chip.

7.   (Currently amended)   The ~~device~~ apparatus of claim 5, in which the ~~detection means~~ request circuit is connected to input terminals of the microprocessor.